

REMARKS

The Office Action dated December 26, 2007, has been received and carefully considered. Reconsideration of the current rejections in the present application is respectfully requested based on the following remarks.

I. THE NON-STATUTORY SUBJECT MATTER REJECTION OF CLAIM 11

On page 2 of the Office Action, claim 11 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is hereby respectfully traversed.

The Examiner asserts that claim 11 is non-statutory because, on page 19, lines 7-9, of the specification, Applicant describes that the medium that carries the instructions can be a form of signal. Moreover, the Examiner requires that the recitation "or transmitted to one or more processors via one or more signals" be deleted from the specification. Applicant respectfully disagree. Applicant respectfully submits that the specification recites "one or more processors operating in accordance with stored instructions may implement the functions associated with source address tracing in accordance with the present invention as described above. If such is the case, it is within the scope of the present invention that such instructions may be stored on one or more processor readable

carriers (e.g., a magnetic disk), or transmitted to one or more processors via one or more signals." See, page 19, lines 2-9. Therefore, Applicant respectfully submits that the instructions are stored (e.g., on a magnetic disk) and may be either readable by one or more processors or transmitted to one or more processors via one or more signals. Furthermore, Applicant respectfully submits that claim 11 does not recite "the medium that carries the instructions can be a form of signal," as asserted by the Examiner. For example, claim 11 recites "[a]t least one processor readable medium for storing a computer program of instructions configured to be readable by at least one processor for instructing the at least one processor to execute a computer process for performing the method as recited in claim 1." This contradicts the Examiner's assertion that the claim 11 does not recite a computer program being stored and executable on any readable medium. Thus, claim 11 clearly recites such a tangible embodiment.

In view of the foregoing, it is respectfully requested that the aforementioned non-statutory subject matter rejection of claim 11 be withdrawn.

II. THE ANTICIPATION REJECTION OF CLAIMS 1-5, 9, 12-16, 20 & 21

On pages 3-4 of the Office Action, claims 1-5, 9, 12-16, 20, and 21 were rejected under 35 U.S.C. § 102(a) as being anticipated by Peng et al. ("Detecting Distributed Denial of Service Attacks Using Source IP Address Monitoring"). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Id. "In addition, the prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). Such possession is effected only if one of ordinary skill in the art could have combined the disclosure in the prior art reference with his/her own knowledge to make the claimed invention. Id.

Regarding claims 1, 12, and 21, the Examiner asserts that Peng et al. discloses the claimed invention. Specifically, the

Examiner asserts that because Peng et al. teaches matching the IP source address of the incoming packets to the source and therefore discloses "determining whether the at least part of the source address matches at least one source address recorded within a predetermined time period prior to arrival of the packet," as presently claimed. Applicant respectfully disagrees. Specifically, Applicant respectfully submits that Peng et al. does not match the IP source address of the incoming packets to the source addresses recorded in a hash table. Instead, Peng et al. merely discloses "comparing the current counts of the hash table with the IAD" to "calculate how many new IP addresses have appeared in this time slot." See, page 4, Section A. Moreover, Peng et al. fails to disclose, or even suggest, that the IAD contains IP addresses that include "at least one source address recorded within a predetermined time period prior to the arrival of the packet," as presently claimed.

Also, Applicant respectfully submits that Peng et al. and the other cited references, taken either alone or in combination, fail to disclose, or even suggest, routing a packet if at least part of a source address matches at least one source address recorded within a predetermined time period prior to arrival of the packet, as presently claimed. In contrast, Peng

et al. discloses adding legitimate IP addresses to an IP Address Database (IAD), recording IP addresses that appear in a current time interval in a hash table along with a number of IP packets and a time stamp of the most recent IP packet for each IP address, and comparing the IAD to the hash table to determine the number of new IP addresses that have appeared in the current time interval. For unsophisticated attacks, Peng et al. also discloses detecting an attack (and preventing packet routing) if the number of IP packets per IP address is larger than a certain threshold. For more sophisticated attacks, Peng et al. further discloses detecting an attack (and preventing packet routing) if the number of new IP addresses that have appeared in the current time interval changes abruptly. (See Peng et al., page 4, Section A and Fig. 3). These disclosures by Peng et al. fail to disclose, or even suggest, "routing the packet if at least part of a source address matches at least one source address recorded within a predetermined time period prior to arrival of the packet," as presently claimed.

Furthermore, the Examiner asserts that Peng et al. discloses recording the arrival time of the packet in the hash table if an address matches one recorded in the hash table. The Examiner goes on to assert that such a disclosure by Peng et al. discloses "routing a packet if at least part of a source address

matches at least one source address recorded within a predetermined time period prior to arrival of the packet," as presently claimed. Applicant respectfully disagrees and respectfully submits that recording of an arrival time associated with an IP address in a hash table does not disclose, or even suggest, "routing a packet if at least part of a source address matches at least one source address recorded within a predetermined time period prior to arrival of the packet," as presently claimed.

In view of the foregoing, is it respectfully submitted that claims 1, 12, and 21 are allowable over Peng et al.

At this point, Applicant would like to remind the Examiner that, as stated in MPEP § 2131, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Regarding claims 2-5, 9, 13-16, and 20, these claims are dependent upon independent claims 1 and 12. Thus, since independent claims 1 and 12 should be allowable as discussed above, claims 2-5, 9, 13-16, and 20 should also be allowable at least by virtue of their dependency on independent claims 1 and 12. Moreover, these claims recite additional features which are

not disclosed, or even suggested, by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned anticipation rejection of claims 1-5, 9, 12-16, 20, and 21 be withdrawn.

III. THE OBVIOUSNESS REJECTION OF CLAIMS 6 AND 17

On page 5 of the Office Action, claims 6 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peng et al. ("Detecting Distributed Denial of Service Attacks Using Source IP Address Monitoring"). This rejection is hereby respectfully traversed.

As stated in MPEP § 2143.03, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Regarding claims 6 and 17, these claims are dependent upon independent claims 1 and 12. Thus, since independent claims 1 and 12 should be allowable as discussed above, claims 6 and 17 should also be allowable at least by virtue of their dependency on independent claims 1 and 12. Moreover, these claims recite additional features which are not disclosed, or even suggested, by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 6 and 17 be withdrawn.

IV. THE OBVIOUSNESS REJECTION OF CLAIMS 7, 8, 18, AND 19

On page 5 of the Office Action, claims 7, 8, 18, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peng et al. ("Detecting Distributed Denial of Service Attacks Using Source IP Address Monitoring") in view of Lingafelt et al. (U.S. Patent Application Publication No. US2002/0147925A1). This rejection is hereby respectfully traversed.

It is respectfully submitted that the aforementioned obviousness rejection of claims 7, 8, 18, and 19 has become moot in view of the deficiencies of the primary reference (i.e., Peng et al.) as discussed above with respect to independent claims 1

and 12. That is, claims 7, 8, 18, and 19 are dependent upon independent claims 1 and 12 and thus inherently incorporate all of the limitations of independent claims 1 and 12. Also, the secondary reference (i.e., Lingafelt et al.) fails to disclose, or even suggest, the deficiencies of the primary reference as discussed above with respect to independent claims 1 and 12. Indeed, the Examiner does not even assert such. Thus, the combination of the secondary reference with the primary reference also fails to disclose, or even suggest, the deficiencies of the primary reference as discussed above with respect to independent claims 1 and 12. Accordingly, claims 7, 8, 18, and 19 should be allowable over the combination of the secondary reference with the primary reference at least by virtue of their dependency on independent claims 1 and 12. Moreover, claims 7, 8, 18, and 19 recite additional features which are not disclosed, or even suggested, by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 7, 8, 18, and 19 be withdrawn.

V. THE OBVIOUSNESS REJECTION OF CLAIM 11

On page 6 of the Office Action, claims 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Peng et al. ("Detecting Distributed Denial of Service Attacks Using Source IP Address Monitoring") in view of Langberg et al. (U.S. Patent No. 5,852,630). This rejection is hereby respectfully traversed.

It is respectfully submitted that the aforementioned obviousness rejection of claim 11 has become moot in view of the deficiencies of the primary reference (i.e., Peng et al.) as discussed above with respect to independent claim 1. That is, claim 11 is dependent upon independent claim 1 and thus inherently incorporates all of the limitations of independent claim 1. Also, the secondary reference (i.e., Langberg et al.) fails to disclose, or even suggest, the deficiencies of the primary reference as discussed above with respect to independent claim 1. Indeed, the Examiner does not even assert such. Thus, the combination of the secondary reference with the primary reference also fails to disclose, or even suggest, the deficiencies of the primary reference as discussed above with respect to independent claim 1. Accordingly, claim 11 should be allowable over the combination of the secondary reference with the primary reference at least by virtue of its dependency on independent claim 1. Moreover, claim 11 recites additional

features which are not disclosed, or even suggested, by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 11 be withdrawn.

VI. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

Hunton & Williams LLP

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